Abstract Summary:
Driving recommendations are absent from consensus guidelines regarding adolescent concussion. This presentation provides findings from a cross sectional survey of nurse practitioners regarding their recommendations for adolescents after concussion, in absence of standardized guidance. Results will generate discussion and recommendations regarding driving related queries to be considered for concussion management.
Learning Activity:
The learner will be able to Identify key symptoms after concussion and their potential relationship to driving.

Content includes survey of literature regarding common post concussion symptoms including sleepiness and sleep disruption, visual complaints, and fatigue. Potential relationship to driving will be explored, including gaps in the literature as they related to adolescent patients.

The learner will describe current consensus guidelines regarding concussion on common adolescent activities requiring cognitive effort.

Discussion will include analysis of the CDC Heads Up materials, AAN Evaluation and Management of Concussion in Sports (2013), ACE Concussion Evaluation Care Plan (Giola & Collins, nd), AAP Guide on Returning to Learning (Halstead et al. 2013) and other guidelines as appropriate.

The learner will synthesize results of NP survey responses in two states to explore clinical recommendations for the practicing clinician.

Findings from a large (1,051) response survey of licensed NPs in Oregon and Washington will be presented and analyzed to identify current practice trends and explore future clinical recommendations.

Abstract Text:

**Background:** Clinicians are asked to provide recommendations for adolescent concussion patients specific to return to sport play, or learning; however, guidance regarding other common activities that require cognitive focus, such as driving, is missing from clinical guidelines. In most states, nurse practitioner (NPs), regardless of specialty focus or expertise, are statutorily licensed to provide recommendations for concussion follow-up.

**Objective:** Findings from an original research study in two states investigating NP driving guidance and its clinical basis for restriction or limitation following adolescent concussion will be presented, in order to explore clinical recommendations and practice implications for those examining adolescents after concussion.

**Method:** Licensed NPs in Oregon and Washington completed a web-based questionnaire after viewing a four-minute scripted video scenario of an adolescent describing symptoms of concussion occurring 72 hours prior. Driving recommendations were collected using an open-ended query, which was coded and categorized by type (restriction, limitation), characteristic, and basis (symptom, time, or healthcare utilization).

**Results:** Among the 4,849 licensed NPs, 1,017 (20%) responded to the question of interest and the majority (93.6%) provided driving recommendations: 30.4% based on time (e.g., wait 7 days), 47.2% based on symptoms (e.g., until headache resolves), and 26.7% based on healthcare utilization (e.g., additional imaging assessment). 70.2% recommended driving 7 or fewer days following a concussion. Few (1%) advised using a standardized concussion assessment tool, and 5.3% mentioned fatigue and sleep symptoms when making driving recommendations.

**Discussion:** Individualized symptomatology, examination, and time were key factors in clinical decision-making for post-concussion driving, rather than use of standardized tools. Consensus guidelines do not provide significant guidance for NPs who are responsible to release adolescents to cognitive and physical activity including driving. Driving as soon as a week after concussion may contribute to further risk and
potential for injury. Persistent symptoms that can impact driving, such as sleep and visual disturbances, may warrant screening and consideration when advising patients on concussion recovery and driving.